

AMENDMENT

Please amend the above-identified application as follows:

IN THE SPECIFICATION:

Please amend paragraph [0035] as follows:

[0035] Referring to FIG. 2, in selected embodiments, a transmission element assembly 33 may include a first transmission element 24a mounted in the pin end 12 of a downhole component 10, and a second transmission element 24b mounted in the box end 14 of a downhole component 10. Each of these transmission elements 24a, 24b may be operably connected by a cable 26a, such as electrical wires, coaxial cable, optical fiber, or like transmission media. Each of the transmission elements 24 may include an exterior annular housing 28. The annular housing 28 may protect and retain components or elements within the transmission elements 24a, 24b, 24c, and 24d. The annular housing 28 may have an exterior surface shaped to conform to a recess milled, formed, or otherwise provided in the pin 12 or box end 14 of a downhole component 10.

Please amend paragraphs [0037] and [0038] as follows:

[0037] As is illustrated in FIG. 2, a transmission element 24b located on a first downhole component 10 may communicate with a transmission element 24c located on a second downhole component 10. Electrical current transmitted through a coil 32 in a first transmission element 24b may create a magnetic field circulating around the conductor 32. ~~A second t~~Transmission element 24c may be positioned proximate ~~the first~~ transmission element 24b such that the magnetic field is detected by a coil 32 in the transmission element 24c.

[0038] In accordance with the laws of electromagnetics, a magnetic field circulated through an

electrically conductive loop induces an electrical current in the loop. Thus, an electrical signal transmitted to a ~~first~~ transmission element 24b may be replicated by a ~~second~~ transmission element 24c. Nevertheless, a certain amount of signal loss may occur as a signal is transmitted between the transmission elements 24b, 24c. For example, signal loss may be caused by air or other gaps present between the transmission elements 24b, 24c, or by the reluctance of selected magnetic materials. Thus, apparatus and methods are needed to reduce, as much as possible, signal loss that occurs between transmission elements 24b, 24c. This may be accomplished, in some instances, by minimizing the gap between the transmission elements 24b, 24c. This may improve the signal coupling as well as keep debris or other substances from being introduced between the transmission elements 24. Thus, apparatus and methods are needed to minimize, as much as possible, the gap between transmission elements 24b, 24c.